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Making sense of the numbers

Improving cost indicators for local government

Response to Productivity Commission questions

Hereturikōkā 2019

1 Summary

In its draft report on local government funding and financing, the Productivity Commission posits three specific questions in regards to the Local Government Cost Index (LGCI). In particular, it asks

> **Is the current methodology for preparing the Local Government Cost Index sufficient for forecasting the prices that local authorities are likely to face? If not, should the methodology be improved, such as by one or more of:**
>
> - **Carrying out more frequent reweighting**
> - **Including output indices**
> - **Disaggregating by council type?**

This note records the response from Business Economic and Research Limited (BERL) to these questions and related matters.

In principle, we have few objections to the suggestions arising from the analysis by Sapere for the Productivity Commission.

However, we question the extent of potential benefits of pursuing these improvements. In terms of benefits we refer to whether these improvements will indeed provide more robust measures of costs facing the local government sectors. And, consequentially, whether they provide a more robust foundation for forecasting the prices that local authorities face.

More frequent reweighting is preferable in the ideal world, but again the benefits are likely to be marginal when compared to the costs required to undertake reweighting exercises.

Similarly, using output indices for particular categories may be more appropriate for certain categories of spending. Again, though, the benefits may be marginal.

Disaggregating the LGCI by council type needs to be considered against the constraints arising from the availability of Statistics New Zealand's primary input data. In particular, there is extremely limited data from Statistics New Zealand on the regional variation in a range of prices. This severely limits the ability to provide a cost-effective regional (or council-type) dimension to the LGCI.

1.1 Reweighting

Changing from a fixed-weight set of indices to a chain-weighted set of indices is theoretically sound and can be implemented at relatively minimal low cost. We accept this should be adopted.

However, regular reweighting is not a costless exercise and needs to be balanced with the relative benefits. There is a case for exploring and monitoring spending patterns on a more regular basis, with a view to incorporating updated weights on a regular cycle. We note that the Consumer Price Index basket is re-weighted on a three-yearly basis. This would also align well with the Council Community Plan cycle. This would seem an appropriate improvement to the LGCI framework, although it must be acknowledged that this would increase the cost of maintaining the LGCI. At present, the costs of re-weighting are spread over an approximately five-year period. With re-weighting more regularly on, say, a three-yearly cycle, the costs would in essence be repeated every three years.

While sound from a theoretical perspective, the comparison of data series provided in the Commission's draft report (Figure 3.11 on page 48) indicate that the difference arising from more regular reweighting is likely to be minimal. In particular, a difference between 32 percent and 31 percent in movement over 10 years is unlikely to lead to significant changes in expected forecast prices over the following 10-year horizon.

In this case, the sector may need to balance the value of such an improvement against the additional cost. Alternatively, the sector may seek external financing for such additional cost.

1.2 Output indices

We agree that output indices are theoretically better proxies for council expenditures that are not directly provided in-house but, rather, are outsourced to external contractors. Hence, incorporating output indices into the framework to mirror the distinction between outsourced and in-house provision of goods and services would be an improvement of the LGCI.

In practice, this requires further analysis of base-year council expenditures to separately identify spending on out-sourced goods and services, and that on goods and services provided directly in-house. This would be a non-negligible increase in the level of detail of underpinning the LGCI framework. Consequently, this will involve an increase in costs, primarily during each regular reweighting exercise. These costs should properly be balanced against the likely benefits. Our previous comments on more regular reweighting apply here as well.

Again, noting the objective of providing a framework for forecasts of future prices in the local government sector, an improvement that results in marginal differences in historical price indices is unlikely to produce noticeable differences in forecast prices. Similarly, the option of external financing to cover the additional cost of a more detailed LGCI framework may alter this balancing of costs to benefits decision.

1.3 Disaggregating by council type

Disaggregating the LGCI framework by council type (e.g. regional, rural, provincial, metropolitan) also appears to be a valid suggestion. It is also attractive from a user and ratepayer perspective, noting that common sense indicates that regional councils have a different spending basket and face different pressures than, say, a metropolitan council.

However, this is undoubtedly the most costly of the three proposed improvements in terms of resource requirements. In this case, it is even more important that appropriate benefits are shown as accruing from this additional cost impact.

To reflect the different spending basket of councils by type, it would be a relatively straight-forward exercise to provide sets of specific weights for each of the council types. In order to estimate these weights, we would need to collate a set of council expenditure data across a range of councils of each type. This would essentially be an extension of the current process undertaken during reweighting; with the extension requiring four sets of weights, as opposed to one set.

The LGCI framework is designed to enable forecasts of prices facing the local government sector. The framework is used to forecast prices over the coming 10-year period. When designing or considering improvements (especially relatively costly ones) to this framework, we should also consider whether such improvements provide increased robustness and rigour to the consequent forecasts.

In order to meet this goal the improvements to the framework would need to go beyond providing different weights for each council type. In particular, there would need to be additional information on the different cost pressures facing each council type. In this regard, data limitations are likely to restrict the ability to improve the robustness of the ensuing forecasts. The cost and price indices that are used in the LGCI framework are sourced directly from Statistics New Zealand. These provide information on costs and prices at the national level for various sectors and goods. The lack of any regional dimension to these costs and prices information makes the information base for regional or area price and cost forecasts thin.

In particular, there is no regional (or sub-national) dimension in the labour costs indices (salary and wage rates), the capital goods price indices, or the producer price indices. These are the core information for the construction of the LGCI framework. The absence of sub-national information within this core information means there is little information to underpin a disaggregation by council type.

In this situation, we are limited to generating an LGCI framework for each council that will be differentiated only by the weights being applied to each of the constituent indices. This will inevitably lead to forecasts for one particular council type (e.g. rural) that is unlikely to be more than marginally different from that for other council types (e.g. provincial).

For this reason we query whether moving to a finer level of disaggregation is worthwhile (in terms of cost effectiveness) in the absence of finer level base cost and price level indices. Pursuing more refined and targeted cost and price forecasts for the sector is indeed a worthy endeavour. However, in the absence of more refined base level indices, adjusting the weighting structure of existing indices will provide little improvement in terms of increased robustness or improved rigour to the forecasts.

As noted above, the Sapere-constructed index reported by the Productivity Commission (combining weighting changes and an output index into the framework) yielded little change to the overall LGCI – a 32 percent compared to a 31 percent increase over a 10-year period.

For this reason, while there are no in principle objections to the improvements suggested, they are unlikely to provide practical improvements to forecasts of prices and costs faced by the local government sector.

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